What is claimed is:

1. A fluid recovery system for collecting fluid from a patient comprising

a housing having a collection chamber for collecting the fluid,

a valve for controlling fluid flow within the fluid recovery system, the valve including a valve member that selectively engages a valve seat surrounding a fluid opening to seal the fluid opening, the valve seat being integrally molded to the housing of the fluid recovery system.

2. The fluid recovery system of claim 1, wherein the valve is a vacuum protection valve providing air flow communication with the collection chamber to permit air flow in one direction out of the chamber.

3. The fluid recovery system of claim 2, wherein the valve member is constructed of an elastomeric material and has a generally umbrella-like shape.

4. The fluid recovery system of claim 1, wherein the fluid recovery system is a chest drain.

5. The fluid recovery system of claim 1, wherein the valve is a negative pressure protection valve that opens to provide air flow between the collection chamber and the outside environment through the fluid opening when pressure in the collection chamber is lower than a predefined threshold.

6. The fluid recovery system of claim 5, wherein the negative protection valve further includes a valve housing for seating a spring and the valve member, said valve member being biased by the spring against said integrally molded valve seat to seal the fluid opening, wherein a pressure in the collection chamber lower than the predefined threshold causes the spring to contract thereby moving the valve member and providing air flow between the collection chamber and the outside environment.

7. The fluid recovery system of claim 6, wherein said valve housing is integrally molded to said housing of said fluid recovery system.

8. The fluid recovery system of claim 6, further comprising an integrally molded raised structure protruding outwardly from the fluid opening and configured to inhibit occlusion of the opening.

9. The fluid recovery system of claim 8, wherein said raised structure includes a hollow frusta-conical member surrounding the opening from the outside and having ports for providing air flow from the outside environment through the opening.

10. The fluid recovery system of claim 6, wherein the valve housing includes a first cylindrically tubular portion for receiving the spring and extending to a second portion for seating the valve member, the second portion of the valve housing having at least one port therein for providing air flow between the valve housing and the collection chamber.

11. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a collection chamber for collecting a volume of the fluid from the patient, and

a vacuum protection valve for allowing air flow in one direction out of the collection chamber, said vacuum protection valve including an enclosure integrally molded within the housing that has a base extending to an opening for providing air flow communication with the collection chamber.

12. The fluid recovery system of claim 11, wherein the vacuum protection valve includes a hollow flexible retaining member, the valve being secured to the housing by snap action placement of the flexible retaining member in said opening.

13. The fluid recovery system of claim 12, wherein the vacuum protection valve includes an umbrella valve member for sealing the opening, thereby providing one way air flow through the opening.

14. The fluid recovery system of claim 13, wherein the vacuum protection valve further includes a retaining member for retaining the umbrella valve member over the opening.

15. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a collection chamber for collecting a volume of the fluid from the patient, and

a positive pressure relief valve for reducing pressure in the collection chamber when the pressure in the chamber exceeds a pre-defined value,

wherein said positive pressure relief valve includes an integrally molded enclosure formed in said housing, said integrally molded enclosure having an integrally molded ramped rib.

16. The fluid recovery system of claim 15, wherein said integrally molded enclosure includes a first opening for air flow communication with the collection chamber and a second opening for air flow communication with the outside environment, said first opening being sealed by a sealing ball to provide a fluid-tight seal between the collection chamber and the integrally molded enclosure, said ball being dislodged from the first opening when pressure within the collection chamber exceeds the pre-defined value to allow air flow between the collection chamber and the outside environment, and wherein said integrally molded ramped rib provides a rolling surface to bias the ball toward said first opening when said fluid recovery system is destabilized from a normal operating orientation.

17. The fluid recovery system of claim 16, wherein the positive pressure relief valve further includes an integrally molded raised surface surrounding the second opening, said raised surface providing a valve seat for a sealing element to seal the housing from the outside environment.

18. A fluid-recovery system for collecting fluid from a patient, comprising

a housing having a front face and a collection chamber for collecting a volume of fluid from the patient, and

a vacuum indicator for indicating when pressure in the collection chamber is below a selected threshold, the vacuum indicator including

an integrally molded seat in the front face of the housing,

a translucent diaphragm positioned in the seat, and

a cap mounted to the seat to compress the diaphragm into sealing engagement with the seat, the cap having a marking on a surface facing the diaphragm and further having an opening that provides air flow between the collection chamber and the diaphragm.

19. The fluid-recovery system of claim 18, wherein the diaphragm is formed of an elastomeric material.

20. The fluid recovery system of claim 18, wherein the front face includes a translucent portion and the vacuum indicator is positioned within the housing such that it is externally visible through the translucent portion of the front face, and the diaphragm contacts the marked surface of the cap when pressure within the collection chamber is below the selected threshold, thereby rendering the marker visible.

21. A fluid-recovery system for collecting fluid from a patient, comprising

a housing having a front face, said front face having a translucent portion and said housing further having a collection chamber for collecting a volume of the fluid from the patient, and

a vacuum indicator for indicating when pressure in the collection chamber is below a selected threshold, the vacuum indicator including

a seat,

a translucent diaphragm positioned in the seat, and

a cap mounted to the seat to compress the diaphragm into sealing engagement with the seat, the cap having a marking on a surface facing the diaphragm and further having an opening that provides air flow between the collection chamber and the diaphragm,

wherein the vacuum indicator is positioned within the housing such that it is externally visible through the translucent portion of the front face, and the diaphragm contacts the marked surface of the cap when pressure within the collection chamber is below the selected threshold, thereby rendering the marker visible.

22. A fluid-recovery system for collecting fluid from a patient, comprising

a housing having a top surface and a collection chamber for collecting a volume of the fluid from the patient, and

a pressure relief valve having a manually actuable diaphragm sealing an integrally molded enclosure within the top surface from outside environment, the molded enclosure being in air flow communication with the collection chamber, and the diaphragm being manually actuated by an integrally molded actuating element to provide air flow between the collection chamber and the outside environment to reduce pressure in the collection chamber.

23. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a top surface and a collection chamber for collecting a volume of fluid from the patient, and

a connecting element of a latching connector integrally molded to the top surface of the housing and configured to receive a mating connecting element of the latching connector.

24. The fluid recovery system of claim 23, wherein said integrally molded connecting element is a female portion of a latching connector.

25. The fluid recovery system of claim 23, wherein said integrally molded connecting element is a male portion of a latching connector

26. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a collection chamber for collecting a volume of the fluid from the patient, and

a pressure measuring port integrally molded within said housing and configured to be in fluid communication with the collection chamber and to receive a pressure gauge for measuring pressure within the collection chamber.

27. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a collection chamber for collecting the fluid, and

a tamper-resistant disposal system for disposal of the collected fluid.

28. The fluid-recovery system of claim 27, wherein said tamper-resistant disposal system includes a

a disposal port integrally formed within said housing.

a seal positioned on said disposal port for sealing said disposal port, and

a cap having a cap body, a cap base, and a plurality of break-away tabs along a circumference thereof, said break-away tabs joining said cap body to said cap base, said cap being secured to said disposal port to close said disposal port.

29. The fluid-recovery system of claim 28, wherein said disposal port includes a first plurality of ratchet-like teeth and said cap includes a second plurality of ratchet-like

teeth, said first and second plurality of ratchet-like teeth being in mating engagement upon threaded engagement of said cap with said disposal port to inhibit rotation of said base relative to said disposal port when said cap body is rotated relative to said disposal port.

30 The fluid-recovery system of claim 29, wherein said cap includes a translucent portion to allow visual inspection of said seal.

31. A fluid recovery system for collecting fluid from a patient, comprising

a housing having a top surface and a collection chamber for collecting a volume of the fluid from the patient, and

a handle attached to the top surface and raised above other components on the top surface for carrying the fluid recovery system, the handle having a length that allows two people to simultaneously hold it.

32. The fluid recovery system of claim 31, wherein said handle is integrally molded to said housing.

33. The fluid recovery system of claim 32, wherein the length of said handle is approximately 5 inches.

34. A method for manufacturing a fluid recovery system for collecting fluid from a patient, the method comprising the steps of

forming a housing through injection molding having a collection chamber and an integrally molded valve seat for selective engagement with a valve member of a valve for controlling fluid flow within the fluid recovery system.

35. The method of claim 34, wherein the valve is a vacuum protection valve providing air flow communication with the collection chamber to permit air flow in one direction out of the chamber.

36. The method of claim 34, wherein the valve member is constructed of an elastomeric material and has a generally umbrella-like shape.

37. The method of claim 34, wherein the valve is a negative pressure protection valve and is configured to open to provide air flow between the collection chamber and the outside environment through the fluid opening when pressure in the collection chamber is lower than a predefined threshold.

38. The method of claim 37, further including the step of configuring said negative protection valve to include a valve housing for seating a spring and the valve member, said valve member being biased by the spring against said integrally molded valve seat to seal the fluid opening, wherein a pressure in the collection chamber lower than the predefined threshold causes the spring to contract thereby moving the valve member and providing air flow between the collection chamber and the outside environment.

39. The method of claim 38, further including the step of integrally molding said valve housing to said fluid recovery system.

40. The method of claim 39, further including the step of providing an integrally molded raised structure protruding outwardly from the fluid opening, said raised structure being configured to inhibit occlusion of the port.

41. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a collection chamber for collecting a volume of the fluid from the patient and having a vacuum protection valve for allowing air flow in one direction out of the collection chamber, said vacuum protection valve including an

enclosure integrally molded within the housing, said enclosure having a base extending to an opening for providing air flow communication with the collection chamber.

42. The method of claim 41, wherein the step of forming a housing includes employing injection molding to form said housing.

43. The method of claim 41, further including the step of configuring the vacuum protection valve to include a hollow flexible retaining member, the valve being secured to the housing by snap action placement of the flexible retaining member in said opening.

44. The method of claim 43, further including the step of configuring the vacuum protection valve to include an umbrella valve member for sealing the opening, thereby providing one way air flow through the opening.

45. The method of claim 44, further including the step of configuring the vacuum protection valve to include a retaining member for retaining the umbrella valve member over the opening.

46. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a collection chamber for collecting a volume of the fluid from the patient and having a positive pressure relief valve having an integrally molded enclosure within the housing, the positive pressure relief valve reducing pressure in the collection chamber when the pressure in the chamber exceeds a pre-defined value.

47. The method of claim 46, wherein the step of forming the housing includes employing injection molding to form said housing.

48. The method of claim 46, wherein the step of forming the housing further includes providing the integrally molded enclosure of the positive pressure relief valve with a first opening for air flow communication with the collection chamber and for seating a sealing ball for providing a fluid tight seal between the collection chamber and the integrally molded valve enclosure.

49. The method of claim 48, wherein the step of forming the housing further includes providing the integrally molded enclosure of the positive pressure relief valve with a second opening for providing air flow communication with the outside environment.

50. The method of claim 48, wherein the step of forming the housing further includes configuring a wall of the integrally molded enclosure to provide a ramped rib for guiding the sealing ball toward the first opening when the fluid recovery system is destabilized from a normal operating orientation.

51. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a front cover and a collection chamber for collecting a volume of the fluid, and

providing a vacuum indicator for indicating when pressure in the collection chamber is below a selected threshold, the vacuum indicator having a seat integrally molded in the front cover and having a translucent diaphragm seated in the integrally molded seat and having a cap mounted to the seat to compress the diaphragm into sealing engagement with the seat, the cap having a marking on a surface facing the diaphragm and further having an opening that provides air flow between the collection chamber and the diaphragm, wherein the diaphragm contacts the marked surface of the cap when pressure within the collection chamber is below the selected threshold, thereby rendering the marking visible.

52. The method of claim 51, wherein the step of forming the housing includes employing injection molding to form said housing.

53. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a top surface and a collection chamber for collecting a volume of the fluid from the patient, and further having an integrally molded enclosure within the top surface in air flow communication with the collection chamber, said integrally molded enclosure having an integrally molded actuating element, and

sealing the integrally molded enclosure with a manually actuable diaphragm being actuated by said integrally molded actuating element for providing a pressure relief valve.

54. The method of claim 53, wherein the step of forming the housing includes employing an injection molding process.

55. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising

forming a housing having a top surface and a collection chamber for collecting a volume of the fluid from the patient, and further having a connecting element of a latching connector integrally molded to the top surface of the housing and configured to receive a mating connecting element of the latching connector.

56. The method of claim 55, wherein the step of forming the housing includes employing an injection molding process.

57. A method for manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a collection chamber for collecting the fluid, and further having a pressure measuring port integrally molded within said housing and configured to be in fluid communication with the collection chamber and to receive a pressure gauge for measuring pressure within the collection chamber.

58. The method of claim 57, wherein the step of forming the housing includes employing an injection molding process.

59. A method of manufacturing a fluid recovery system for collecting fluid from a patient, comprising the steps of

forming a housing having a collection chamber for collecting the fluid, and further having a tamper-resistant fluid disposal system in said housing.

60. The method of claim 59, wherein the step of forming the housing includes an injection molding process.

61. The method of claim 59, further including the step of selecting said fluid disposal system to include a disposal port integrally formed with said housing.

62. A method of manufacturing a fluid-recovery system for collecting fluid from a patient, said method comprising the step of

forming a housing having a top surface and a collection chamber for collecting a volume of the fluid, said housing further having a handle attached to the top surface and raised above other components on the top surface for carrying the fluid recovery system.

63. The method of claim 62, wherein the step of forming the housing includes employing an injection molding process.